

**Abstract:**

A communication system using quantum cryptography, comprising subscriber stations (1.i, 2.i) which are connected to quantum channels (3) and quantum-cryptographic devices (10, 11) which are associated with the quantum channels for generating a quantum key, wherein several interconnected switching stations (1, 2) are provided to which the subscriber stations (1.i, 2.i) are connected via the quantum channels (3) in order to generate a respective temporary quantum key.